

The Knowledge Bank at The Ohio State University

Ohio State Engineer

Title:	The Army Goes to College
Creators:	Ink, Dwight
Issue Date:	1943-11
Publisher:	Ohio State University, College of Engineering
Citation:	Ohio State Engineer, vol. 27, no. 1 (November, 1943), 15-16, 22, 26.
URI:	http://hdl.handle.net/1811/36010

The Army Goes to College

By PFC. DWIGHT INK

"Compan-y, atten-shun!"

"Fo-ard, harch!"

Long ranks of khaki move forward in rhythmic step to the familiar "hut-hip-hup-four" of the platoon leader. The men swing along like veterans, their columns straight and their movements precise. The crisp morning air vibrates as an energetic drum and bugle corps in the center of the long files blasts out the stirring Cassion Song.

Instead of a gun and field pack, these men carry an armload of books. A slide rule is slung from their belt in place of a canteen. Chevrons of every non-commissioned grade are scattered throughout the ranks. Stranger still, one can see the bright distinctive shoulder insignia of nearly every branch of the Army—men from the infantry, field artillery, air forces, and other units all marching together as one body.

Their surroundings are most unmilitary. Leaving a new brick dormitory, they are turning down a winding pavement lined with tall peaceful elms. Luxuriant lawns stretch out to imposing stone and brick buildings of Old English and modified Grecian architecture. Along the sidewalk pretty coeds in brightly colored sweaters and saddle shoes turn to watch, smiling and sometimes waving as they see a familiar face.

These men marching along this beautiful campus avenue belong to an engineering unit of the Army's Specialized Training Program. Under this program thousands of mentally alert soldiers from camps all over the country are increasing their usefulness to the army by taking intensified college training in engineering, medicine, and foreign area and language.

One might quite naturally ask if we can afford to send any of our soldiers back to college now. After all, this is total war and its successful prosecution requires our every ounce of energy. For our answer let us turn to General Marshall, Chief of Staff.

"The Army has been increasingly handicapped by a shortage of men possessing desirable combinations of intelligence, aptitude, education and training in fields such as medicine, engineering, languages, science, mathematics, and psychology, who are qualified for service as officers of the Army. With the establishment of the minimum Selective Service age at 18, the Army was compelled to assure itself that there would be no interruption in the flow of professionally and technically trained men who have hitherto been

provided in regular increments by American colleges and universities.

"The Army Specialized Training Program was established to supply the needs of the Army for such men. The objective of the program is to give specialized technical training to soldiers on active duty for certain Army tasks for which its own training facilities are insufficient in extent or character."

The Army must get a maximum number of men to the battlefield as quickly as possible. For this reason only a minimum of men can be held back for long periods of training. Moreover, the work is so intensive that only a few men are capable of completing the training. As a result, a great deal of careful selection must precede the assignment of each man to this program.

The process of elimination begins long before the trainee reaches the college campus. In order to be considered for the program a soldier must have completed his basic military training and scored 115 or more in his Army General Classification Test. The minimum requirement in education is high school graduation and, if over 22, one year of college. Men in units alerted for overseas duty are not eligible. However, many men returned from combat duty are now in the program.

In most camps eligible men go before one or more boards similar to the OCS Board. Here their records are gone over and their eligibility checked. Those who have the best military record and who are thought to be the most capable of completing the program are sent to an A.S.T.P. Specialized Training and Reassignment Unit—known as a STAR Unit.

A STAR Unit is established at a specified college for the purpose of receiving, housing, and classifying soldiers selected as generally qualified for the A.S.T.P. The STAR selection board first gives each man two-hour tests in physics, mathematics, and chemistry to determine roughly his familiarity with each of those fields. After the test results have been tabulated comes an important personal interview with an experienced examining officer. With this officer lies the final decision of whether the soldier is to be assigned to the A.S.T.P. or sent back to his old outfit. His civilian life is quickly scanned and once again his military experience briefly reviewed. His test results are very important, but his attitude and previous record also carry a great deal of weight in this final determination of his ability

to carry the prescribed course of study. Roughly half the men reaching this final interview qualify for the program. The successful soldier is designated by this board to a specific course of study in the highest term for which he is qualified.

In a week or two the trainee is sent to an Army Specialized Training Unit established at a college or university. The trainee finds living conditions here vastly different from those he has grown used to in camp. A comfortable well-furnished dormitory is his home. No longer does he have to stuff his freshly pressed uniform into a footlocker or barracks bag only to have them get wrinkled again because he and his roommates now share a clothes closet and a large dresser. Neither does he sleep on a rickety canvas cot which always sooner or later begins to resemble a collapsible bathtub. Not that he particularly minded sleeping on a cot. Certainly it was no hardship. But he can at least appreciate springs and mattress more now than he could have as a civilian. The vivid memory of bivouacs in the rain and mud sharply increases this appreciation. He has a large desk with reading lamp—luxuries unheard of in the army. The food is as good as any he has tasted since leaving home and, best of all, the first sergeant regrets to inform the men that their schedule will be so busy that they won't possibly have time for K.P.

The trainee is soon introduced to a cadet system similar to that used in Officer Candidate Schools. Each A.S.T.U. is headed by a permanent commanding officer. The trainees are organized into sections, companies, and battalions. Within each unit acting officers and non-commissioned officers serve long enough to become familiar with their duties. Usually the assignments are rotated.

No trainee is allowed to forget that his academic work is of the greatest importance. Although he is still a soldier and subject to full military discipline, he is here primarily to get the most out of his school work that he possibly can. The Army cannot afford to waste money and precious time on any man who does not take his training seriously.

The engineer finds his program divided into two phases, Basic and Advanced, each of which is subdivided into several curricula. All men going into Basic are reduced to privates while those going into Advanced retain their rank. Military and physical training is the same in both phases. With the exception of military, all courses are taught by civilian instructors and, while in the classroom, trainees are subject to their supervision.

Most students in the Basic phase are in the curriculum called BE-I which includes mathe-

matics, physics, chemistry, English, history, and geography. It consists of three—12 week terms and is the course of study ordinarily found in the first year and one-half of college engineering.

Smaller groups are in BE-II (Surveying), BE-III (Internal Combustion Engines), and BE-IV (Communications). These three are terminal curricula, which means that trainees will be sent to various arms and services upon completion of the three terms. They do not enter the Advanced Phase.

Trainees in BE-I ordinarily move into the Advanced Phase of Chemical, Civil, Electrical, or Mechanical Engineering at the end of three terms. This phase covers the last two and one-half years of college engineering in three or four 12-week terms, depending upon the engineering branch. Anyone who has taken engineering in college will readily see that these men are not loafing by any means. These courses are difficult even when stretched over the normal four-year period.

A considerable number of men over 22 take three-month refresher courses (Term 4-A) in mathematics, physics, and engineering drawing. In addition, some soldiers with college degrees are taking a variety of special university courses on the graduate level.

About five hours of military training are included each week. The men see a large variety of Army training films, listen to lectures on military topics, and brush up on drill during these hours.

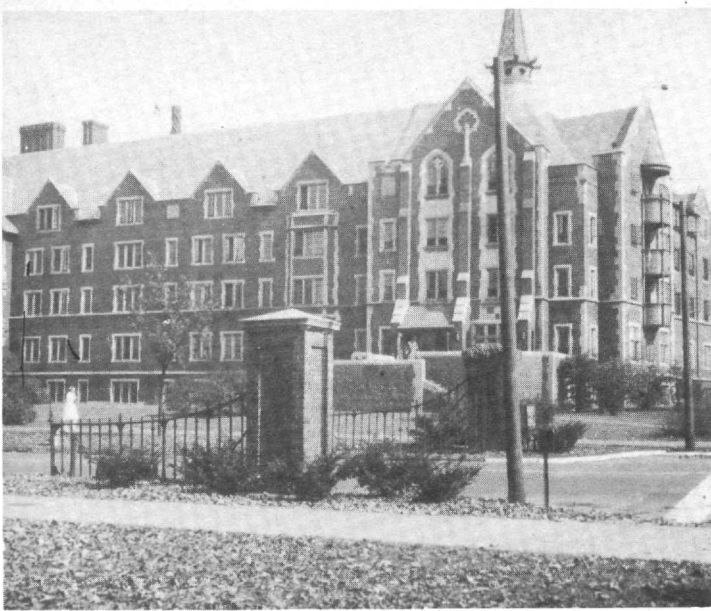
Six hours of physical conditioning are also in the A.S.T.P. Trainees are not, however, permitted to engage in intercollegiate sports. These soldiers are being trained for specific Army duties at Army expense and the time required for instruction and training and supervised study does not allow sufficient leeway for participation in varsity sports.

A successful trainee will ordinarily move from term to term to the completion of his course. However, all men are subject to other active duty at any time and at the end of every 12-week term a soldier can be recommended for one of the following:

- a. Continuation in the A.S.T.P.
- b. Assignment to Officer Candidate School.
- c. Assignment to Army Service Schools.
- d. Assignment to other military duty.

Graduates have no idea where they will be assigned or what their duties will be. "The Army Specialized Training Program is not earmarked for any particular arm, service, or component," says General Marshall. "Graduates will be assigned according to need in the same manner newly inducted men entering the Army are classi-

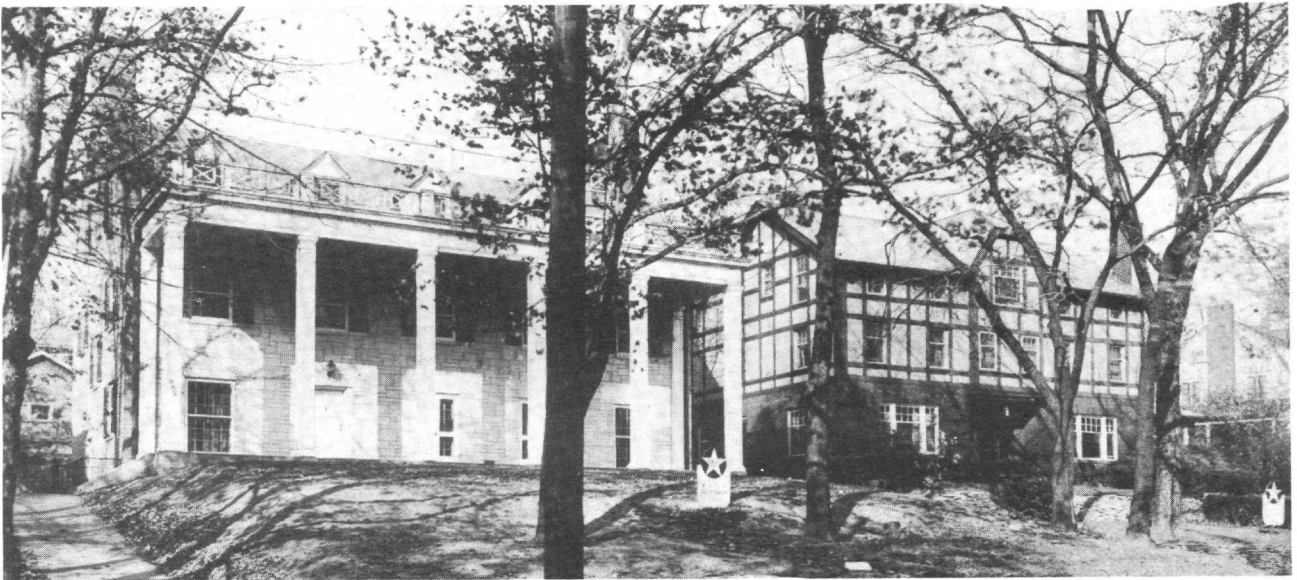
(Continued on page 22)



Mack Hall, Company B



Neil Hall, Company C



**The former homes of fraternities;
now the quarters of Company 1**



The Chow House



Company C comes home from school



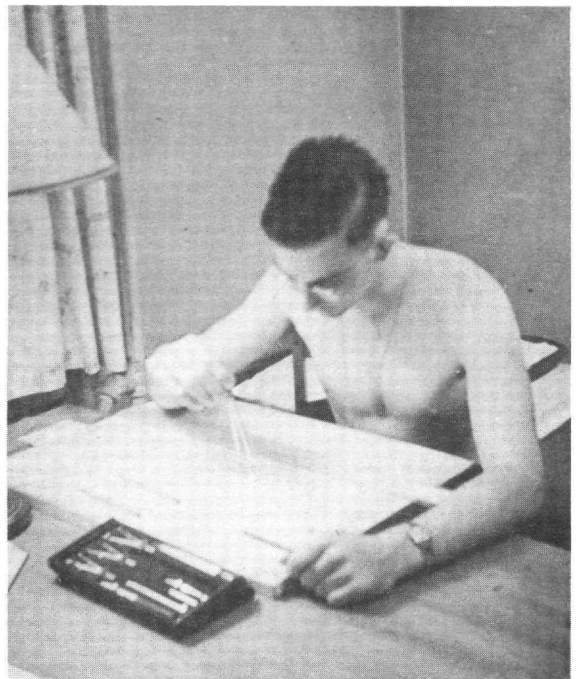
Boxing



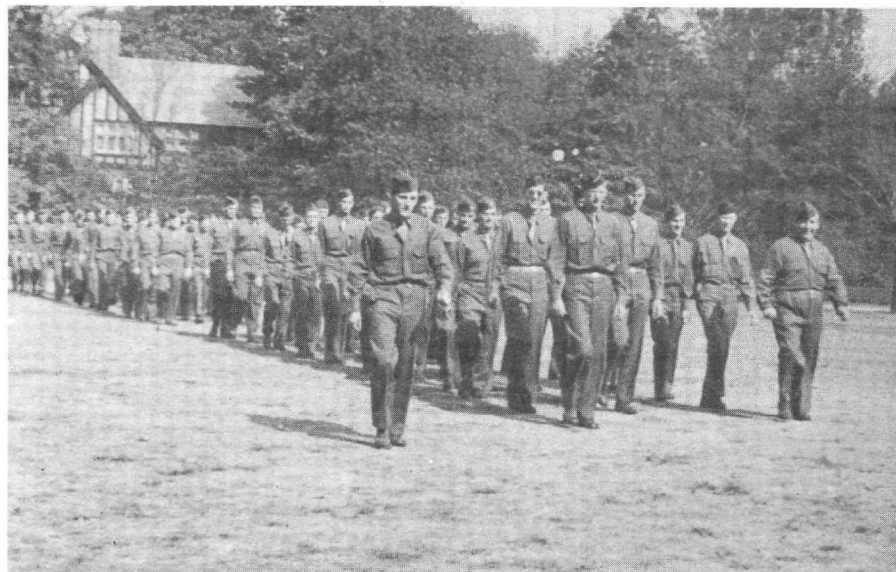
Wrestling



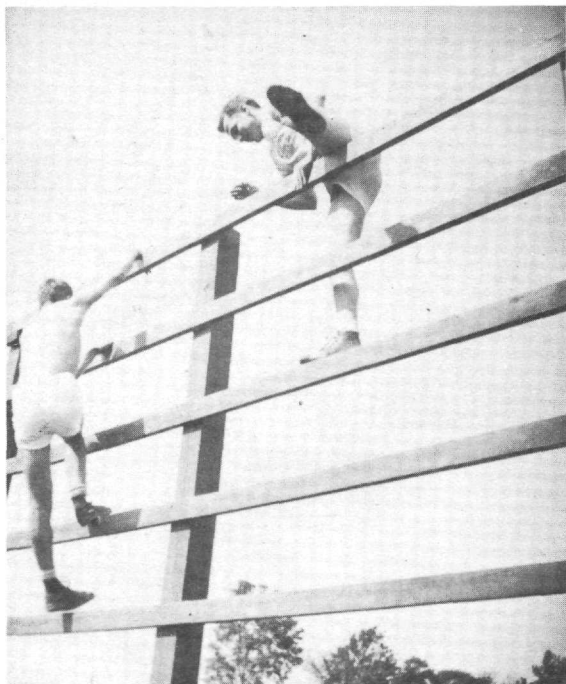
Over the wall



Drawing



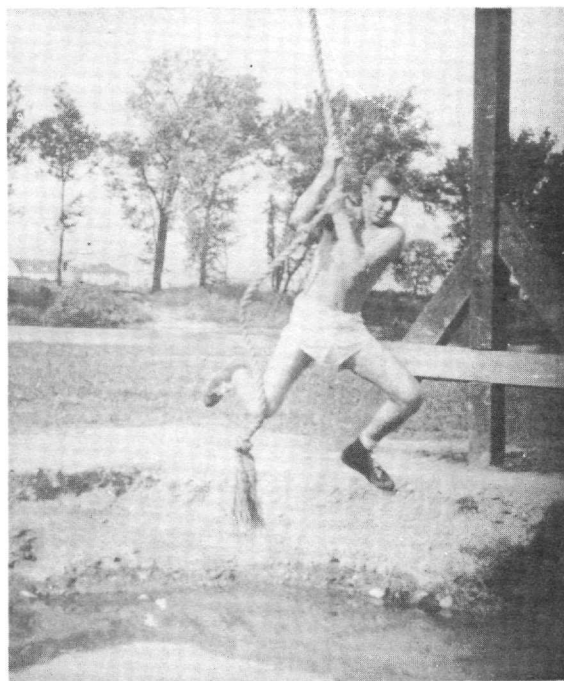
Marching



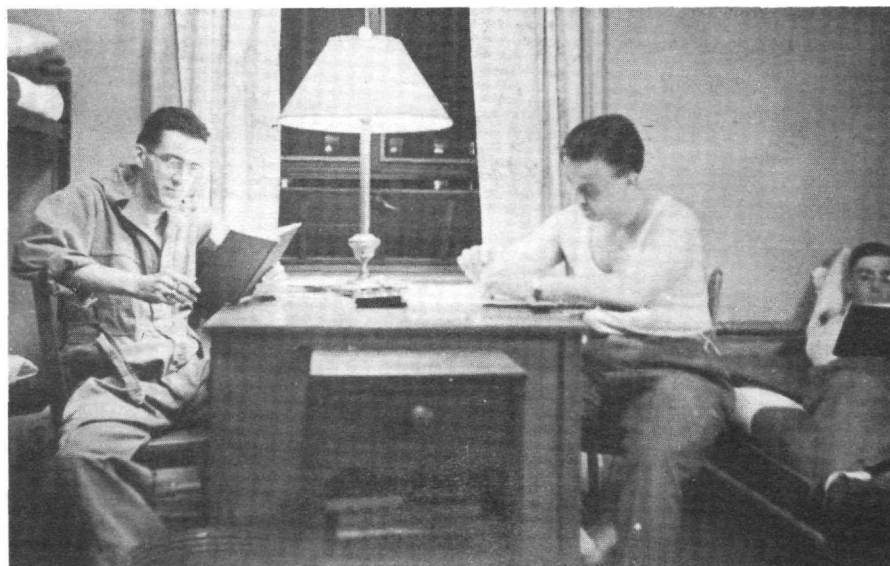
Part of the obstacle course



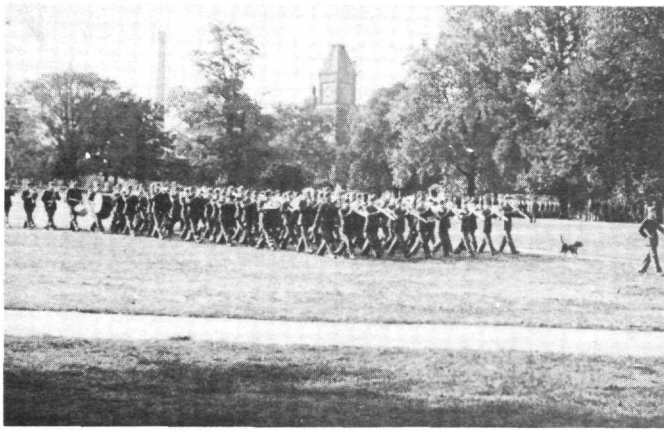
Surveying



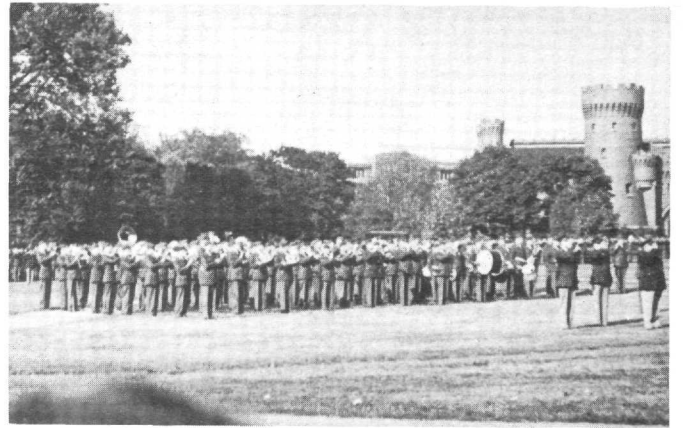
Dry Feet



Studying



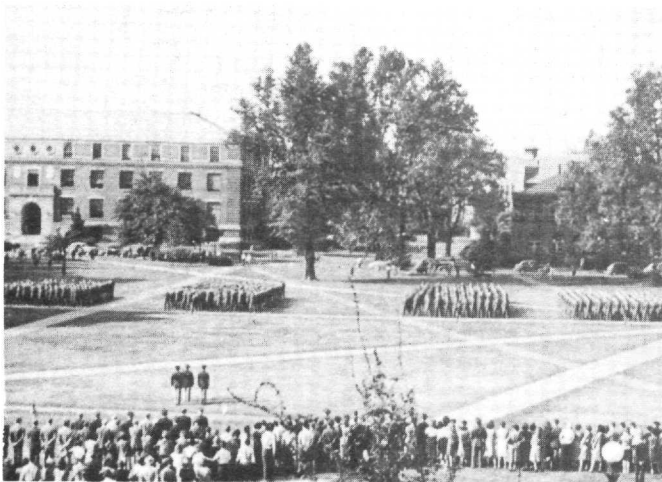
The band sounds off



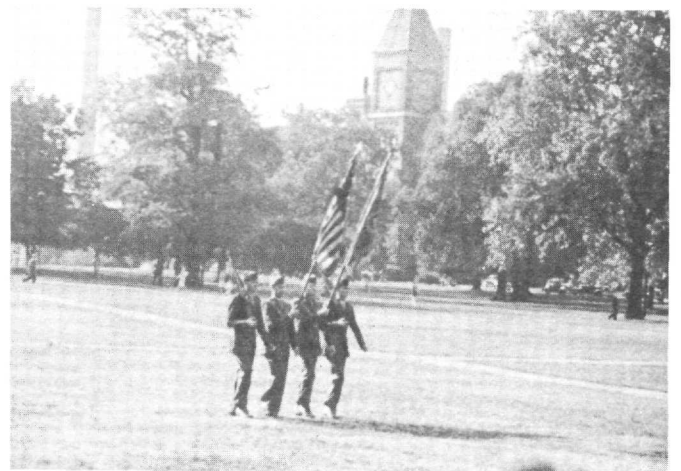
Present Arms



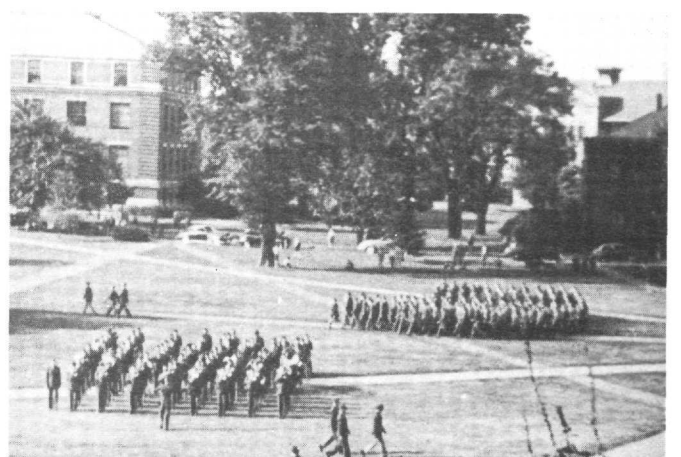
Colonel Brunzell



Parade Rest



The Color Guard



Passing in Review



Symbol of Service

... in peace and war

This emblem is familiar throughout the nation as the symbol of a well-trained team, integrated for service in peace or war—The Bell Telephone System.

- 1.** American Telephone & Telegraph Co. coordinates all Bell System activities.
- 2.** Twenty-one Associated Companies provide telephone service in their own territories.
- 3.** The Long Lines Department of A. T. & T. handles long distance and overseas calls.
- 4.** Bell Telephone Laboratories carries on scientific research and development.
- 5.** Western Electric Co. is the manufacturing, purchasing and distributing unit.

The benefits of the nation-wide service provided by these companies are never so clear as in time of war.



THE ARMY GOES TO COLLEGE

(Continued from page 16)

fied and assigned, primarily on the basis of pre-induction skills or professions. The program is Army-wide in scope."

The chart below shows for what arms and services each curriculum prepares soldiers:

		Inf.	Cav.	FA	CAC	CWS	CE	SC	ORD
Basic	I	x	x	x	x	x	x	x	x
Basic	II	x	x	x	x				
Basic	III	x	x	x	x			x	
Basic	IV	x	x	x	x			x	
Chem. E.						x	x		x
Civil E.		x	x	x	x		x		
E. E.		x	x	x	x	x	x	x	x
M. E.		x	x	x	x	x	x		x

Since all of the academic work in the program is at the college level, credits toward degrees are already being given in some colleges. The A.S.T.P. Advisory Committee, composed of presidents of a number of leading colleges and universities, has recommended the authorization of A.S.T.P. credits and after the war such credits will probably be accepted by all colleges. It is also expected that provision will be made for soldiers returning after the war to qualify as civilian students for degrees since most A.S.T.P. graduates will need a few special courses to "round out" their education before receiving degrees.

Mechanized war has caused a tremendous change in the status of the engineer. Whereas he was once an important part of the army, he is now an indispensable part. Upon his efforts depend the success of attack or defense. He is consulted about every move the army makes. He leads the attack and is the last in retreat.

The mission of the engineer in war is to increase the combat effectiveness of the other arms. A tremendous task allotted to him is that of facilitating movement of our troops by construction, repair, and reconstruction of roads, railroads, bridges, port facilities, landing fields and bases. Almost as important is the job of impeding the movement of the enemy by the execution of demolition and the creation of obstacles. To understand the value of this we need look only to the Russian Army where the engineer has done much to make every German movement, whether an advance or retreat, a most difficult and costly undertaking.

Much of this work must be done under fire. Occasionally, the engineer must relieve hard-pressed infantry in holding defensive positions. At times he takes a most active part in offensive action. The flame thrower, for example, advancing upon a pillbox with his burning oil and dynamite is certainly taking the offensive. Again, it

is the engineer who has the extremely dangerous task of establishing a bridgehead across an enemy held river.

Behind the lines the engineer is busy perfecting transportation systems and harbor facilities, preparing, reproducing, and distributing military maps with which to guide the whole military effort, developing camouflage and other protective plans for defense of vital military and industrial installations, and the construction of fortifications.

The activities of the engineer are not confined to the Army Engineer Corps. Some kind of engineering unit is attached to every arm and service of the Army. Some are even given assignments in factories. The hand of the engineer works with every implement of war from the time the idea is first conceived and set down in drawings until the implement is sent to war and finally destroyed in combat.

Another huge drain on our supply of engineers will probably exist in the armies of occupation. The AMG government the Allies have set up in Sicily is dealing with the first real problem of occupation we have yet faced in this war. A much larger problem is shaping up in the Italian peninsula. Quite possibly the AMG does not find it easy to get things functioning near normal again in Sicily, but its difficulties are insignificant when compared with those we will face as more and more territory is taken from the Nazis and more and more people become our responsibility for the duration of the emergency. The problem will be the greatest and most urgent the moment peace comes. Rehabilitation will then constitute the greatest project this world has ever seen.

Imagine the picture as it will then confront us. The echoes of gunfire have died away and the great European battlefield is silent. A feeling of utter exhaustion pervades the scene. As the armies moved across the land, fields were burned and the meager supplies of grain in the granaries taken. Most of the cattle, hogs, and chickens belonging to the peasants were long ago confiscated by the Reich. Much of the remaining livestock was unable to escape the destruction of the opposing armies. When the Nazis left, the rationing system immediately collapsed and the populace scrambled to get what little food was left. Most of the population has been on the verge of starvation since a few months after Hitler moved in to "protect" the people several years ago, but now the situation has become even worse. Only outside help can prevent famine.

War, famine, and pestilence have always gone together. The acute shortage of rations are

(Continued on page 26)



AN EXPRESSION OF FAITH IN AMERICA

RECENTLY, Goodyear dedicated a new home for its bold and manifold research activities, now concentrated on war products.

Gathered here, in vast array, are the most modern instruments of scientific discovery—not only in the fields of natural rubber, synthetic rubber and its kindred plastics—but in fields also ranging even to aerodynamics and metallurgy.

More than a million dollars went into this building and its equipment. It is, we believe, the finest laboratory for its purpose in the world.

But it is not the completion of the structure which we emphasize here.

It is rather the beginning of a new advance—an advance already launched by the limitless demands of war, which will surely gain momentum with the peace to come.

For Goodyear's growth has stemmed not from the accumulation of properties or from finance—but from fertility of the mind and the serviceability of the prod-

ucts which this fertility brought forth.

From the beginning Goodyear has steadfastly stressed research to advance the usefulness and value of its products.

It was this constant quest for improvement which, in the early days, originated the first straight-side tire.

It brought forth the first pneumatic tire for trucks and farm tractors—the first low pressure tire for airplanes.

It brought cotton, rayon and nylon cord tires to their high perfection.

It produced Pliofilm and Airfoam, twin advances in packaging and cushioning.

It developed the never-equalled Compass transmission belt.

It perfected bullet-puncture-sealing fuel tanks for airplanes.

It enabled America's first *all-synthetic* tire, produced by Goodyear in 1937.

And for 28 years now, it has won popular tribute, expressed in the fact that more people ride on Goodyear tires than on any other kind.

We cannot predict what this laboratory will bring forth in future.

But in the realm of possibilities—from the developments spurred by war—is such a range of products as nailable glass, wafer-thin insulating materials, hundred-mile conveyor belt systems, non-freezable plastic water pipes, metal-wood laminations for car and airplane bodies, mildewproof tents and awnings, static-free radio, all-welded airplane fabrication, crashproof airplane fuel tanks, and many like wonders on which we are now at work.

These will dictate in significant measure “the shape of things to come,” forecasting the fullness of life which is ours to conceive and realize when peace returns.

So what we have dedicated is not a building, but the talents which this building is built to serve.

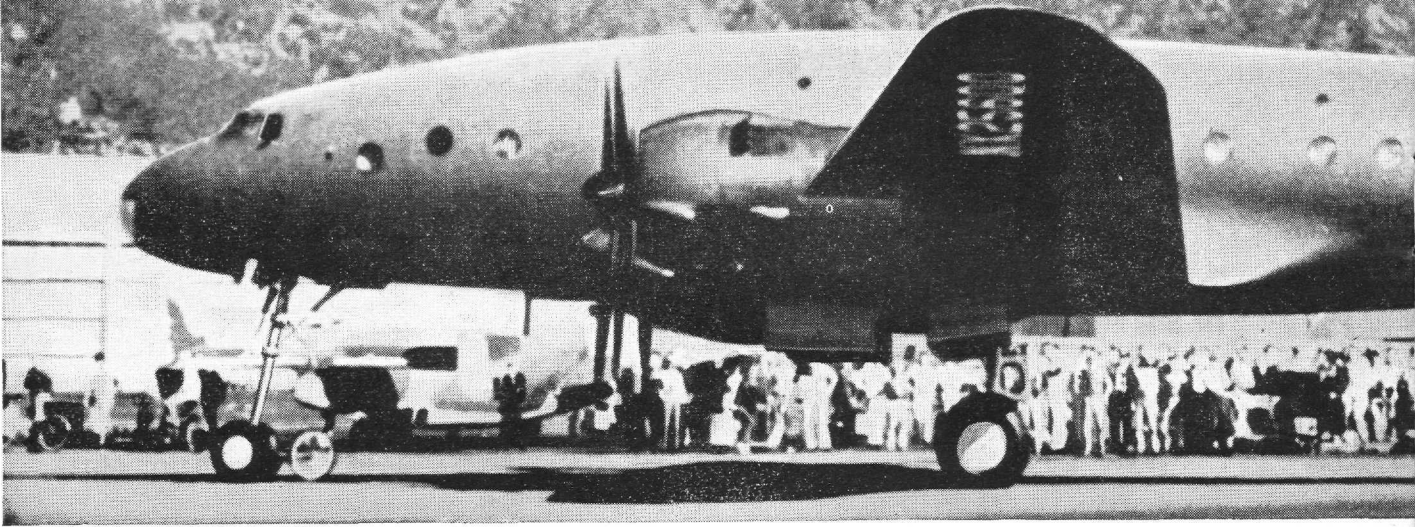
It is our aim to make it forever true of Goodyear, as of life in America, that “the best is yet to come.”

Plioilm, Airfoam, Compass—T. M.'s The Goodyear Tire & Rubber Company

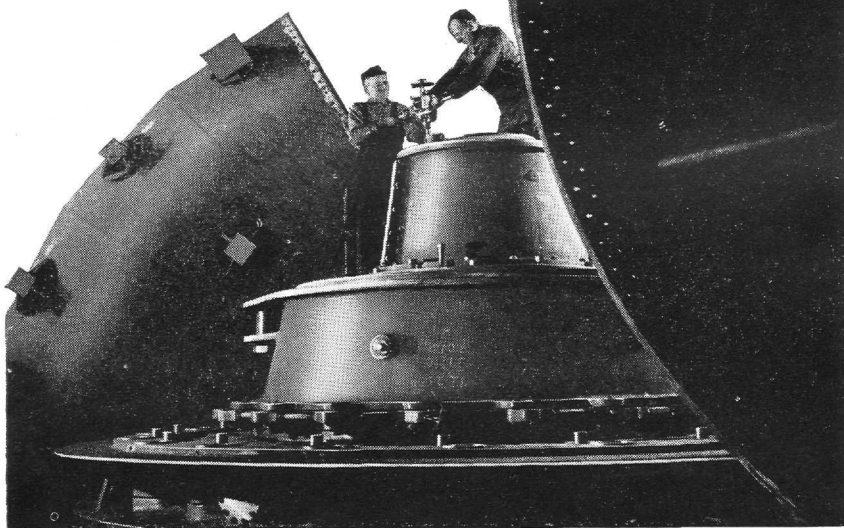
GOOD YEAR

THE GREATEST NAME IN RUBBER

Shrink the World



Just a sample of the kind of machines we build: A hydraulic turbine which will apply 130,000 horsepower to America's war effort!



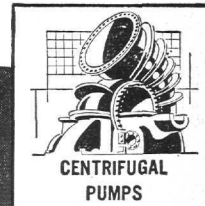
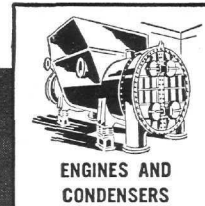
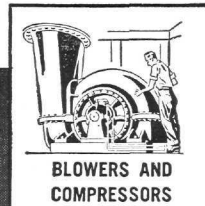
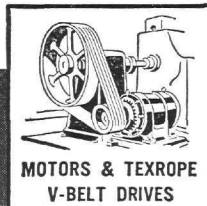
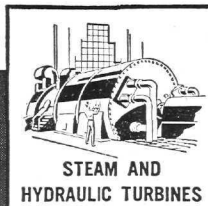
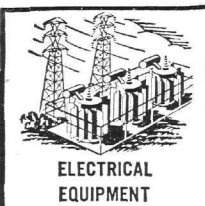
Power

TWO BIG JOBS! And Allis-Chalmers is helping do both. This unusual company makes 1600 industrial products—everything from equipment that helps make and shape steel and aluminum for U. S. airplanes to giant turbines for U. S. power plants.

THAT SUPER CARGO PLANE is like something out of the future. You didn't expect to see it for years. Yet there it is . . .

America's great industries are cramming years of aviation advancement into months. And Allis-Chalmers is working at top speed to help them produce more and better planes.

Huge Allis-Chalmers turbines help gen-



ALLIS-CH

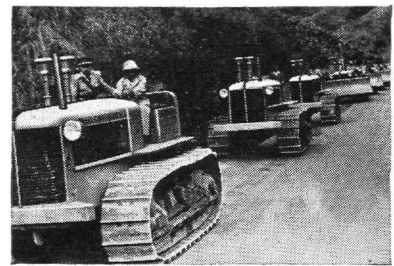
SUPPLYING THE WORLD'S LARGEST LINE

VICTORY NEWS

A-C Maintenance Booklets Now In Spanish, Portuguese! More than 200,000 Allis-Chalmers booklets on war-time maintenance of motors, pumps and rubber V-belts have been requested by men in industry whose job it is to keep machines running.

So great a demand has also come from South American countries that these booklets are now being printed in Spanish and Portuguese.

They are packed with practical information which is particularly helpful in training new men for the important job of making motors, pumps and rubber V-belts last longer during this critical war period. Write for your copies (English, Spanish or Portuguese) today.



Good Neighbors get together! The picture above shows Allis-Chalmers equipment ready for an important road-building job near Rio de Janeiro.

A-C Aids Ship-Building Program: America's shipyards have already smashed every ship-building record in the book—and production of merchantmen and warships is still climbing.

A-C is one of the companies which is feeding these yards. It supplies a larger variety of equipment for ships than any other company in the U.S.A.

Belts, blowers, castings, condensers, control devices, generators, motors, turbines, rudders, complete hull sections, transformers, pumps are just a few of the items which we are supplying.



FOR VICTORY
Buy United States War Bonds

the Nation!

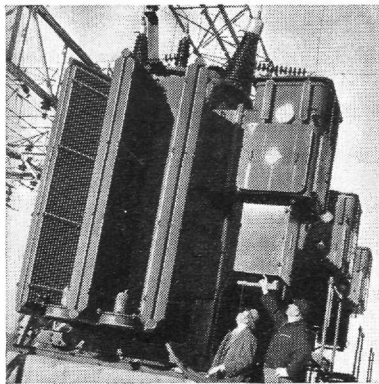
erate the tremendous electric power needed.

A-C motors, drives, controls keep production flowing . . . and Allis-Chalmers also produces equipment for making aluminum and removing precious magnesium from the sea.

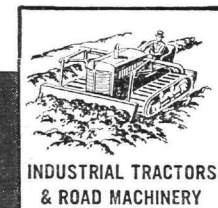
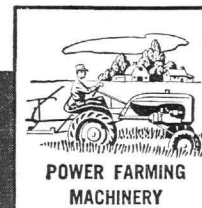
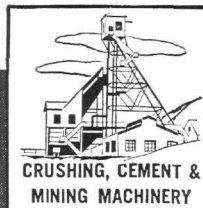
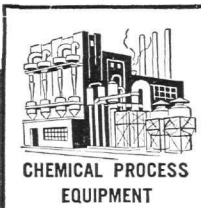
1600 different industrial products come from this one company. And Allis-Chalmers engineers are helping plane makers and other manufacturers *produce more*, not just with new machines—but with *machines on hand!*

It's a tremendous job—and out of it Allis-Chalmers men and women are gaining experience that can mean better peacetime planes, better peacetime goods of all kinds.

ALLIS-CHALMERS MFG. COMPANY, MILWAUKEE, WIS.



One of many Allis-Chalmers transformers that help transmit vital electrical power to U. S. war plants.



ALMERS

OF MAJOR INDUSTRIAL EQUIPMENT



THE ARMY GOES TO COLLEGE

(Continued from page 22)

resulting in widespread malnutrition and serious outbreaks of deficiency diseases such as rickets, scurvy, and anemia. Sanitation is neglected. The collection and shipping of hospital and medical supplies such as soap, blankets, dressings, and transport material is nearly as urgent as the supplying of food. Defense against epidemics requires adequate nutrition, warm shelter and clothing, provision for pure water and efficient sanitation.

Silted ports need dredging, bombed docks need to be rebuilt and have their cranes replaced. Telephone and telegraph system are crying for copper, mica, and other distant raw materials. Rolling stock and locomotives must be replaced. Thousands of miles of highways were destroyed each month of fighting. Hundreds of railway stations and bridges were blown up. Thousands upon thousands of homes have been wiped from the earth.

This picture is incomplete, but it gives an idea of the tremendous amount of work to be done in addition to the purely military. The immediate problems of policing, feeding, clothing, sanitation, shelter, medical services, transportation, and government will be up to us and the other United Nations. The volume of relief, for example, will probably exceed thirty million tons of concentrated food alone according to rough estimates made by Herbert Hoover and other experts on relief. And it is not merely a question of quantities. The right things must be at the place at the right time.

No one is more interwoven in this reconstruction pattern than the engineer. The job of providing adequate railroads and highways is up to him. He must rebuild the docks and replace locomotives. He must construct facilities for the storage and regulated distribution of these huge quantities of relief materials. In conjunction with the Medical Corps, he must take the steps necessary to insure pure water and sanitation facilities. He must rebuild in a few months under trying conditions what took long years to build before the war.

We can begin to see the great need for technically trained men immediately following the war as well as during the fighting. In fact, some people erroneously reach the conclusion that the A.S.T.P. Engineer is trained only for this purpose. Actually, combat needs take absolute priority here just as they do in all other parts of the Army. The number of trainees who are absorbed by this work can be determined only by conditions existing when the trainee finishes his work and is available to the Army.

Rumors also persist to the effect that an A.S.T.P. graduate is destined to spend eight or ten years in Europe aiding in reconstruction. The A.S.T.P. soldier, however, serves on the same basis as any other soldier, for the duration and six months. How long American soldiers—A.S.T.P. or others—will remain in occupied lands no one knows as yet, but certainly they must stay so long as emergency conditions exist.

As civilization develops, education becomes ever more important. It grows more complex and more comprehensive. War offers no exception. In fact, war more than anything else emphasizes the need for education. Advanced technical training is then at its greatest premium. The solution of immediate post-war problems, essential to victory, stresses the same great need. The Army Specialized Training Program should do much to satisfy these demands. Still an experiment, the program promises to round out the Army's own training system so that our drive for victory will be carried through by the most highly developed force in the history of the world.